



## National Transportation Safety Board Aviation Incident Data Summary

<b>Location:</b>	Bismarck, ND	<b>Incident Number:</b>	ENG07IA030
<b>Date &amp; Time:</b>	06/04/2007, 0530	<b>Registration:</b>	N136DH
<b>Aircraft:</b>	LEARJET 36	<b>Injuries:</b>	2 None
<b>Flight Conducted Under:</b>	Part 91: General Aviation - Business		

### Analysis

A Learjet 36A experienced a bird strike on the right hand engine during takeoff. One fan blade of the engine fractured below the mid-span and all others had tears on the leading edges. Some of the liberated fan blade fragments were ejected through the engine fan case just forward of the fan containment ring in three different clocking locations. One fragment passed through the top portion of the oil tank, breaching it. Another ejected blade fragment penetrated the nacelle skin but neither was in the direction of the fuselage, thus limiting the damage only to the nacelle. The bird was identified as a male mallard duck.

### Probable Cause

The National Transportation Safety Board determines the probable cause(s) of this incident to be: A total loss of engine power during takeoff due to the right engine sustaining a fractured fan blade after the ingestion of a mallard duck. Some liberated fan blade fragments were uncontained, penetrating the nacelle.

### Findings

Occurrence #1: LOSS OF ENGINE POWER  
Phase of Operation: TAKEOFF - ABORTED

#### Findings

1. (C) COMPRESSOR ASSEMBLY, FORWARD FAN - FOREIGN OBJECT DAMAGE
2. (C) OBJECT - BIRD(S)
3. (F) MISC, ENGINE UNCONTAINED FAILURE - FOREIGN OBJECT DAMAGE

### Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	LEARJET	<b>Registration:</b>	N136DH
<b>Model/Series:</b>	36 A	<b>Engines:</b>	2 Turbo Fan
<b>Operator:</b>	Intermap Technologies	<b>Engine Manufacturer:</b>	GARRETT
<b>Operating Certificate(s) Held:</b>		<b>Engine Model/Series:</b>	TFE731
<b>Flight Conducted Under:</b>	Part 91: General Aviation - Business		

## Meteorological Information and Flight Plan

Conditions at Accident Site:	Condition of Light:
Observation Facility, Elevation:	Weather Information Source: Unknown
Lowest Ceiling:	Wind Speed/Gusts, Direction: / ,
Temperature:	Visibility
Precipitation and Obscuration:	
Departure Point: Bismarck, ND (KBIS)	Destination: Bismarck, ND (KBIS)

## Airport Information

Airport: Bismarck (KBIS)	Runway Surface Type: Unknown
Runway Used:	Runway Surface Condition: Dry
Runway Length/Width:	

## Wreckage and Impact Information

Crew Injuries: 2 None	Aircraft Damage: Minor
Passenger Injuries: N/A	Aircraft Fire: None
Ground Injuries: N/A	Aircraft Explosion: None
Latitude, Longitude:	

## Administrative Information

Investigator In Charge (IIC): Harald Reichel	Adopted Date: 03/16/2011
Investigation Docket:	NTSB accident and incident dockets serve as permanent archival information for the NTSB's investigations. Dockets released prior to June 1, 2009 are publicly available from the NTSB's Record Management Division at <a href="mailto:pubinq@ntsb.gov">pubinq@ntsb.gov</a> , or at 800-877-6799. Dockets released after this date are available at <a href="http://dms.nts.gov/pubdms/">http://dms.nts.gov/pubdms/</a> .

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